

CUSTOMER NO.: 24498

Serial No. 09/916,903

Reply to Office Action dated: 08/25/05

Response dated: 11/23/05

**PATENT
PU010152**

REMARKS

In the Final Office Action, the Examiner noted that claims 1-17 are pending in the application and that claims 1-17 stand rejected. None of the Applicant's claims are amended by this response.

In view of the following discussion, the Applicant respectfully submits that none of the claims now present in the above identified application are rendered obvious under the provisions of 35 U.S.C. § 103.. Thus the Applicant believes that all of these claims are now in allowable form.

Rejections

A. 35 U.S.C. § 103

The Examiner rejected claims 1-17 under 35 U.S.C. § 103(a) as being unpatentable over Elenbaas et al. (U.S. Pub. No. 2005/0028194, hereinafter "Elenbaas") in view of Barton (U.S. Patent No. 6,233,389). The rejection is respectfully traversed.

The Examiner cites Elenbaas for teaching all of the aspects of the Applicant's invention except for the encoding step. That is, the Examiner concedes that Elenbaas fails to teach, suggest or make obvious "encoding at least a portion of a predetermined number of channels from the plurality of channels to provide corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1. The Examiner, however, cites Barton for teaching the encoding step of the Applicant's invention. The Applicant respectfully disagrees.

The Applicant agrees with the Examiner that Elenbaas fails to teach, suggest or make obvious "encoding at least a portion of a predetermined number of channels from the plurality of channels to provide corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1, however the Applicant further submits that Elenbaas also fails to teach, suggest or make obvious "processing at least one of the corresponding intra and/or non-intra pictures for each of the predetermined number of channels to determine

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which of the predetermined number of channels contain programming" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1.

That is, the Applicant's claim 1 specifically recites:

"A method of creating a subset of channels with programming from a plurality of channels, comprising the steps of:
receiving a plurality of channels, wherein the plurality of channels comprises at least one channel with programming;
encoding at least a portion of a predetermined number of channels from the plurality of channels to provide corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels;
processing at least one of the corresponding intra and/or non-intra pictures for each of the predetermined number of channels to determine which of the predetermined number of channels contain programming to provide the subset of channels with programming; and
storing the subset of channels into memory."

As evidenced by at least claim 1 presented above, in the invention of the Applicant, encoded intra and/or non-intra pictures of the predetermined number of channels are processed to determine which of the predetermined number of channels contain programming. In support of at least claim 1, the Applicant in the Specification specifically recites:

And "At step 212, a portion of a predetermined number of these plurality of channels can be encoded to provide a corresponding encoded signal for each of the predetermined channels. It should be noted that any number of the plurality of channels can be encoded, including all the plurality of channels. In one arrangement, the encoding step can be performed by encoding a portion of each of the predetermined number of channels into MPEG formatted pictures such as intra (I) pictures or non-intra (non-I) pictures. Non-I pictures can include predictive (P) or bi-directional predictive (B) pictures." (See Specification, page 9, lines 3-10).

"At step 214, each of the encoded signals can be processed to determine which of the predetermined number of channels contains programming. Once the channels that contain programming are distinguished from those that do not, a subset of channels with programming can be created. In one arrangement, the pictures that were created from the encoding step can be processed to determine whether the particular channel from which they were encoded contains programming.

As an example, if a particular encoded signal contains one or more non-I pictures, then the number of bits in one or more of these non-I pictures can be counted. If the number of bits is lower than a typical non-I

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picture, for example, 20% lower than typical non-I picture, then there is a good possibility that the encoded signal is a DBS signal that carries no programming. (See Specification, page 9, line 16 through page 10, line 3).

And

"In another arrangement, the motion vectors in one or more non-intra pictures in the encoded signals can be analyzed to determine whether a particular signal contains a still video pattern. If all the motion vectors have a value of zero or substantially close to zero, then there is a good chance that the non-I pictures from which they are measured are from a signal carrying a still video pattern. (See Specification, page 10, lines 9-13).

And

"In another arrangement, one or more I pictures in each encoded signal can be processed for purposes of eliminating the signals containing still video patterns. Specifically, the discrete cosine transform (DCT) coefficients in each I picture can be examined; notably, if the DCT alternating current (ac) coefficients are zero or substantially zero in a large number of the macroblocks in a particular I picture, then there is a good possibility that that I picture is from an encoded signal carrying a still video pattern. (See Specification, page 10, line 19 through page 11, line 1).

As clearly evident from at least the portions of the Applicant's Specification presented above, in the invention of the Applicant, a predetermined number of channels from a plurality of channels received are encoded to provide corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels and the encoded intra and/or non-intra pictures of the predetermined number of channels are processed **to determine which of the predetermined number of channels contain programming.**

The Applicant respectfully submits that along with failing to teach, suggest or making obvious at least "encoding at least a portion of a predetermined number of channels from the plurality of channels to provide corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1 (as conceded by the Examiner, Elenbaas also fails to teach, suggest or make obvious "processing at least one of the corresponding intra and/or non-intra pictures for each of the predetermined number of channels to determine which of the predetermined number of channels contain programming" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1.

In the Final Office Action, the Examiner cites paragraphs [25, 26, 27, 30 and 31] of Elenbaas for teaching the processing step of the Applicant's invention. The

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Applicant respectfully disagrees. More specifically, Elenbaas teaches a personalized news retrieval system. In Elenbaas, a video retrieval system is presented that allows a user to quickly and easily select and receive stories of interest from a video stream. That is, in Elenbaas key frames of each selected story are sequentially displayed; when the user views a frame of interest, the user selects the story that is associated with the key frame for more detailed viewing. The paragraphs of Elenbaas cited by the Examiner for teaching the processing step of the Applicant's invention merely describe the extraction of key frames of the invention of Elenbaas. More specifically, as cited by the Examiner, Elenbaas merely teaches that a first frame of each scene can be identified based upon the differences between frames. That is in Elenbaas, if the differences are substantial, the new frames are typically encoded directly as reference frames; subsequent frames are encoded as differences from these reference frames. Subsequently, a classifier characterizes each story segment into topics and sub-categories. Optionally in Elenbaas, a visual classifier can characterize story segments based on their visual content. Subsequently, the classified story segments are compared to user preferences and a filter identifies each of the story segments with a classification that matches the user preferences.

However, there is absolutely no teaching, disclosure or suggestion in Elenbaas for "processing at least one of the corresponding intra and/or non-intra pictures for each of the predetermined number of channels to determine which of the predetermined number of channels contain programming" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1. That is, Elenbaas absolutely fails to teach, suggest or make obvious processing respective intra and/or non-intra pictures of a predetermined number of channels from a plurality of channels received **to determine which of the predetermined number of channels contain programming**, the channels having been encoded to provide the corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels. In contrast to the invention of the Applicant, in Elenbaas, key frames of a news program are identified, classified and compared to user preferences for enabling a user to receive only stories of interest to a user.

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There is absolutely no teaching or suggestion in Elenbaas for determining which of a predetermined number of channels contain programming and which do not.

In addition, the Applicant respectfully submits that the teachings of Barton, also fail to teach, suggest or make obvious at least "processing at least one of the corresponding intra and/or non-intra pictures for each of the predetermined number of channels to determine which of the predetermined number of channels contain programming" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1. That is, the Applicant respectfully submits that the teachings of Barton, absolutely fail to bridge the substantial gap between Elenbaas and the invention of the Applicant.

That is, the teachings of Barton for a multimedia time warping system, which allows a user to store selected television broadcast programs while simultaneously watching or reviewing another program, fail to teach, suggest or make obvious at least a method of creating a subset of channels with programming from a plurality of channels including at least "processing at least one of the corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels to determine which of the predetermined number of channels contain programming" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1.

More specifically, Barton teaches a multimedia time warping system, which allows a user to store selected television broadcast programs while the user is simultaneously watching or reviewing another program. In Barton, television (TV) input streams can be received in a multitude of forms, for example, analog forms such as National Television Standards Committee (NTSC) or PAL broadcast, and digital forms such as Digital Satellite System (DSS), Digital Broadcast Services (DBS), or Advanced Television Standards Committee (ATSC). Analog TV streams are converted to an Moving Pictures Experts Group (MPEG) formatted stream for internal transfer and manipulation, while pre-formatted MPEG streams are extracted from the digital TV signal and presented in a similar format to encoded analog streams. The invention of Barton parses the resulting MPEG stream and separates it into its video and audio components. It then stores the components into temporary buffers.

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The parser and event buffer decouple the CPU from having to parse the MPEG stream and from the real time nature of the data streams. This decoupling allows for slower CPU and bus speeds which translate to lower system costs. The video and audio components are stored on a storage device. When the program is requested for display, the video and audio components are extracted from the storage device and reassembled into an MPEG stream. The MPEG stream is sent to a decoder. The decoder converts the MPEG stream into TV output signals and delivers the TV output signals to a TV receiver.

However, there is absolutely no teaching, suggestion or disclosure in Barton for at least "processing at least one of the corresponding intra and/or non-intra pictures for each of the predetermined number of channels **to determine which of the predetermined number of channels contain programming**" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1.

Therefore, the Applicant submits that, for at least the reasons recited above, independent claim 1 is not rendered obvious under the provisions of 35 U.S.C. § 103(a) by the teachings of Elenbaas and Barton, alone or in any allowable combination, and, as such, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

Likewise independent claims 8, 10 and 16 recite similar relevant features as the Applicant's independent claim 1. As such, the Applicant respectfully submits that independent claims 8, 10 and 16 are also not rendered obvious under the provisions of 35 U.S.C. § 103(a) by the teachings of Elenbaas and Barton, alone or in any allowable combination, and, as such, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

Furthermore, the Applicant submits that for at least the reasons recited above with respect to independent claims 1, 8, 10 and 16, dependent claims 2- 7, 9, 11-15 and 17, which depend either directly or indirectly from independent claims 1, 8, 10 and 16 and recite additional features therefore, are also not rendered obvious under the provisions of 35 U.S.C. § 103(a) by the teachings of Elenbaas and Barton, alone or in any allowable combination, and, as such, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

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The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

Conclusion

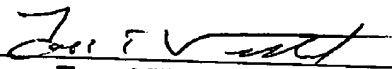
The Applicant respectfully submits that none of the claims, presently in the application, are obvious under the provisions of 35 U.S.C. § 103. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion, it is respectfully requested that the Examiner telephone the undersigned.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account No. 07-0832.

Respectfully submitted,
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